

What is claimed is:

1. A method for diagnosing the presence of prostate cancer or a gynecologic cancer in a patient comprising:
  - (a) measuring levels of ESBPII in cells, tissues or bodily fluids in a patient; and
  - (b) comparing the measured levels of ESBPII with levels of ESBPII in cells, tissues or bodily fluids from a normal human control, wherein a change in measured levels of ESBPII in said patient versus normal human control is associated with the presence of prostate cancer or a gynecologic cancer.
2. A method of diagnosing metastases of prostate cancer or a gynecologic cancer in a patient comprising:
  - (a) identifying a patient having a prostate cancer or a gynecologic cancer that is not known to have metastasized;
  - (b) measuring ESBPII levels in cells, tissues, or bodily fluid from said patient; and
  - (c) comparing the measured ESBPII levels with levels of ESBPII in cells, tissue, or bodily fluid of a normal human control, wherein an increase in measured ESBPII levels in the patient versus the normal human control is associated with a cancer which has metastasized.
3. A method of staging prostate cancer or a gynecologic cancer in a patient having prostate cancer or a gynecologic cancer comprising:
  - (a) identifying a patient having prostate cancer or a gynecologic cancer;
  - (b) measuring ESBPII levels in cells, tissue, or bodily fluid from said patient; and
  - (c) comparing measured ESBPII levels with levels of ESBPII in cells, tissues, or bodily fluid of a normal human control, wherein an increase in measured ESBPII levels in said patient versus the normal human control is associated with a cancer which is progressing and a decrease in the measured

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ESBPII levels is associated with a cancer which is regressing or in remission.

4. A method of monitoring prostate cancer or a gynecologic cancer in a patient for the onset of metastasis  
5 comprising:

(a) identifying a patient having prostate cancer or a gynecologic cancer that is not known to have metastasized;

(b) periodically measuring levels of ESBPII cells, tissues, or bodily fluid from said patient; and

10 (c) comparing the periodically measured ESBPII levels with levels of ESBPII in cells, tissues, or bodily fluid of a normal human control, wherein an increase in any one of the periodically measured ESBPII levels in the patient versus the normal human control is associated with a cancer which has  
15 metastasized.

5. A method of monitoring the change in stage of prostate cancer or a gynecologic cancer in a patient comprising:

(a) identifying a patient having prostate cancer or a  
20 gynecologic cancer;

(b) periodically measuring levels of ESBPII in cells, tissues, or bodily fluid from said patient; and

25 (c) comparing the periodically measured ESBPII levels with levels of ESBPII in cells, tissues, or bodily fluid of a normal human control, wherein an increase in any one of the periodically measured ESBPII levels in the patient versus the normal human control is associated with a cancer which is progressing in stage and a decrease is associated with a cancer which is regressing in stage or in remission.

30 6. The method of claim 1, 2, 3, 4 or 5 wherein the ESBPII comprises SEQ ID NO:1 or SEQ ID NO:2.

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7. A method of imaging prostate cancer or a gynecologic cancer in a patient comprising administering to the patient an antibody which specifically binds to ESBPII.

8. The method of claim 7 wherein said antibody is  
5 labeled with paramagnetic ions or a radioisotope.

9. A method of treating prostate cancer or a gynecologic cancer in a patient comprising administering to the patient an antibody which specifically binds to ESBPII.

10. The method of claim 9 wherein the antibody is  
10 conjugated to a cytotoxic agent.

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